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EXAMINER
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HASSAN, AURANGZEB

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ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* CHRISTOPHER MARTIN

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Appeal 2009-004223  
Application 10/ 783,031  
Technology Center 2100

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Before JAMES D. THOMAS, JOSEPH L. DIXON, and  
LANCE LEONARD BARRY, *Administrative Patent Judges*.

DIXON, *Administrative Patent Judge*.

DECISION ON APPEAL <sup>1</sup>

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<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

## I. STATEMENT OF THE CASE

A Patent Examiner rejected claims 22-27 and 29. The Appellant appeals therefrom under 35 U.S.C. § 134(a). We have jurisdiction under 35 U.S.C. § 6(b). Claims 1-21, 28, and 30-36 are withdrawn from consideration. Claims 22-27 and 29 remain on appeal for review. We reverse and enter a new ground of rejection under 37 C.F.R. § 41.50(b).

### A. INVENTION

The invention at issue on appeal relates to:

[0025] In accordance with one aspect of the invention an apparatus for and method of breaking data to a tape storage medium comprises temporarily storing the data, and selectively compressing the data prior to temporarily storing the data, wherein the selective compressing is a function of the amount of data being temporarily stored. The temporarily stored data are read to the tape.

[0026] In one embodiment the rate at which temporarily stored data are written to the tape is effectively varied, preferably as a function of the rate at which the data is applied to an apparatus for performing the selective compressing or as a function of the amount of temporarily stored data.

(Spec. 6-7).

## B. ILLUSTRATIVE CLAIMS

Claims 22 and 29, which further illustrate the invention, follow:

22. A tape drive unit comprising:

a data compression engine configured to selectively apply compression to an incoming data stream and output a compressed data stream;

a buffer memory configured to store said compressed data stream;

a monitoring element configured to monitor a data occupancy level of said buffer memory configured to store said compressed data stream; and

a control element configured to disable said data compression engine based upon a predetermined level of the data occupancy level of the buffer memory.

29. A memory storing program instructions for causing a data processor to:

monitor a data occupancy level of a buffer memory receiving a compressed data stream: and

disable a data compressor outputting the compressed data stream in response to said data occupancy level of said buffer memory being below a predetermined level.

### C. REFERENCES

The Examiner relies on the following references as evidence:  
Appellant's Admitted Prior Art (AAPA) embodiment represented in figure 4 hereinafter "AAPA4."

AAPA embodiment represented in figures 2 and 3 hereinafter "AAPA23".

### D. REJECTION

The Examiner makes the following rejection:

Claims 22-27 and 29 remain rejected under 35 U.S.C. 103(a) as being unpatentable over a first AAPA embodiment represented in figure 4 hereinafter "AAPA4" in view of a second AAPA embodiment represented in figures 2 and 3 hereinafter "AAPA23".

## II. ISSUE

Has the Examiner set forth a sufficient showing of obviousness based upon the Appellant's admitted prior art?

## III. PRINCIPLES OF LAW

The question of obviousness is "based on underlying factual determinations including . . . what th[e] prior art teaches explicitly and inherently . . . ." *In re Zurko*, 258 F.3d 1379, 1383 (Fed. Cir. 2001) (citations omitted). "The Patent Office has the initial duty of supplying the factual basis for its rejection. It may not . . . resort to speculation, unfounded

assumptions or hindsight reconstruction to supply deficiencies in its factual basis." *In re Warner*, 379 F.2d 1011, 1017 (CCPA 1967).

Obviousness requires that all limitations be taught or suggested by the reference or references. 35 U.S.C. § 103(a).

### *Statutory Subject Matter*

The subject matter of claims permitted within 35 U.S.C. § 101 must be a machine, a manufacture, a process, or a composition of matter. Moreover, our reviewing court has stated that “[t]he four categories [of § 101] together describe the exclusive reach of patentable subject matter. If a claim covers material not found in any of the four statutory categories, that claim falls outside the plainly expressed scope of § 101 even if the subject matter is otherwise new and useful.” *In re Nuijten*, 500 F.3d 1346, 1354 (Fed. Cir. 2007); *accord In re Ferguson*, 558 F.3d 1359 (Fed. Cir. 2009). This latter case held that claims directed to a “paradigm” are nonstatutory under 35 U.S.C. § 101 as representing an abstract idea. Thus, a “signal” cannot be patentable subject matter because it is not within any of the four categories. *In re Nuijten*, 500 F.3d at 1357. Laws of nature, abstract ideas, and natural phenomena are excluded from patent protection. *Diamond v. Diehr*, 450 U.S. at 185. A claim that recites no more than software, logic or a data structure (i.e., an abstraction) does not fall within any statutory category. *In re Warmerdam*, 33 F.3d 1354, 1361 (Fed. Cir. 1994). Significantly, “[a]bstract software code is an idea without physical embodiment.” *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 449 (2007). The unpatentability of abstract ideas was reaffirmed by the U.S. Supreme Court in *Bilski v. Kappos*, 130 S.Ct. 3218 (2010).

#### IV. FINDINGS OF FACT

We reproduce here pertinent portions of Appellant's specification as filed:

[0055] The control elements 507 can be "firmware" modules comprising a set of program instructions, stored in a non volatile memory such as an EEPROM or software stored in a memory such as a floppy or hard disk, a CD ROM or a DVD. Alternatively, the functions performed by processor 506 and elements 507 and by functions can be performed by a logic circuit, for example an application specific integrated circuit (ASIC) or a programmable logic array (PLA). Alternatively, any other convenient arrangement could be used to provide the functions performed by processor 506 and control elements 507.

(Spec. 13).

#### V. ANALYSIS

The Examiner sets forth the statement of rejection of the four separate independent claims by addressing claims 22, 25, 27, and 29 altogether under the same line of reasoning. (Answer 3-4).

Appellants argue in the Reply Brief at page 6:

Regarding AAPA4, although AAPA4 discloses data compression, the Appellant's specification, at page 5, line 25 - page 6, line 3, specifically states that compression is "only done on a once and for all basis at the start of a data storage session and the compression ratio is not changed during the entire back up ...."

Appellant respectfully submits that neither AAPA23 nor AAPA4 suggests the desirability of combining such teachings. If the teachings of AAPA23 and AAPA4 could be combined, it would only be to allow the monitoring and control elements of AAPA23 to control the speed by which data exits the buffer AAPA4 and the speed of the tape drive. There is no basis for asserting that the monitoring

and control elements of AAPA23 control the data compression engine 404 of AAPA4.

More specifically, Appellant respectfully submits that neither AAPA4 nor AAPA23 suggest the desirability of a feedback mechanism that monitors the level of compressed data in a buffer, and based upon a predetermined level of data in that buffer, disables the compression of data entering that buffer.

It is improper to use the claimed invention as an instruction manual to piece together the teachings of the prior art so that the claimed invention is rendered obvious. The Office Action appears to use improper hindsight reconstruction to pick and choose among isolated disclosures. Therefore, it is respectfully submitted that the combination is improper. Accordingly, it is respectfully submitted that the Appellant's data compression engine is patentable over the combination of AAPA4 and AAPA23.

We agree with each of the above lines for reasoning set forth by Appellant with regards to the Admitted Prior Art applied in the Examiner's prior art rejection. Therefore, we cannot sustain the Examiner's rejection based upon obviousness over the admitted prior art.

*Statutory Subject Matter*

With that said, we find that independent claim 29 is directed to a program/software per se and we reject this claim under 35 U.S.C. § 101 as directed to an abstract idea under our authority within 37 CFR 41.50(b).

The preamble of independent claims 29 recites "A memory storing program instructions for causing a data processor to." This amounts to a nominal recitation to a generic structure that performs no present tense function in actuality. *See Diamond v. Diehr*, 450 U.S. 175, 191 (1981). *See also Ex parte Gutta*, 93 USPQ2d 1025 (BPAI 2009) (precedential) (holding



that system claim 14 was nonstatutory under § 101 despite reciting a memory and processor). Independent claim 29 recites in its preamble, assuming arguendo we interpret a memory to be a "medium" that contains program instructions, and the body of this claim recites program instructions "to" (in the future) perform specified functions as reflected in the body of independent claim 29.

Additionally, claim 29 covers both nonstatutory subject matter and statutory subject matter since it is broad enough to encompass both transitory and non-transitory medium embodiments as noted above from Appellant's Specification which states that "Alternatively, any other convenient arrangement could be used to provide the functions performed by processor 506 and control elements 507". Note also the analysis provided by *Subject Matter of Eligibility of Computer Readable Media*, 1351 Off. Gaz. Pat. Office 212 (Feb. 23, 2010).

Therefore, we conclude that independent claim 29 is directed to an abstract idea of software per se.

## VI. CONCLUSION

For the aforementioned reasons, the Examiner has not set forth a sufficient initial showing of obviousness of claims 22-27 and 29. We conclude that independent claim 29 is directed to an abstract idea of software per se.

## VII. ORDER

We reverse the obviousness rejection of claims 22-27 and 29. We have entered a new grounds of rejection of independent claim 29, within the provisions of 37 C.F.R. § 41.50(b).

A new ground of rejection is pursuant to 37 C.F.R. § 41.50(b). Section 41.50(b) provides that, “[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review.”

Section 41.50(b) also provides that the Appellant, **WITHIN TWO MONTHS FROM THE DATE OF THE DECISION**, must exercise one of the following two options with respect to the new grounds of rejection to avoid termination of proceedings as to the rejected claims:

(1) *Reopen prosecution.* Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the Examiner, in which event the proceeding will be remanded to the Examiner. . . .

(2) *Request rehearing.* Request that the proceeding be reheard under 37 C.F.R. § 41.52 by the Board upon the same record. . . .

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(v).

REVERSED; 37 C.F.R. § 41.50(b)

Appeal 2009-004223  
Application 10/783,031

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